



Investment Performance Evaluation Report

As of March 31, 2017

Presented by: Donald R. Eibsen, CFA Tyler Barondeau 720-359-7765

Conduent Human Resource Services Investment Consulting



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#### Introduction

This report reviews the investment performance of the State of Montana's 457(b) Plan for the quarter ending March 31, 2017, as well as other periods ending on that date. While the most recent quarter is the focus point of this report, we recommend concentration on longer time periods for the consideration of any changes to the investment policy or manager structure.

Performance measurement in this report is designed to:

- Provide an understanding of the environment in which the funds were managed;
- Verify that the assets were managed in compliance with guidelines;
- Assess the managers' strengths, continuity of style, and the means of achieving the performance; and
- Serve as a communications tool for internal focus, as well as to fulfill fiduciary obligations.

This report is based upon data provided by the State of Montana, Morningstar, Empower, and fund management firms.

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#### Plan Overview

#### **Net Assets**

• Plan assets totaled \$469.5 million, as of March 31, 2017. This is up from \$455.6 million, as of December 31, 2016.

#### **Asset Allocation**

• Plan assets were allocated 51% to the Stable Value fund, 2% to Bond funds, 11% to Target Date/Balanced funds, 28% to U.S. Equity funds, and 8% to International Equity funds.

#### **Fund Recommendations**

• The Stable Value fund in the investment performance report is benchmarked to the Barclay's Intermediate Government/Credit Index plus 0.35%. PIMCO benchmarks this fund against the Barclay's Intermediate Government/Credit Index, but does not add the 0.35%; nor does the Investment Policy Statement reference the additional 0.35%. It is our recommendation to remove the 0.35% addition to the Barclay's Intermediate Government/Credit Index.



### **Fund Overview**

				Date of	Inception
Asset Class	Fund	Ticker	Recommendation	Status Change	
Stable Value	State of Montana Stable Value	-	Retain		Sep-13
Fixed Income	Prudential Total Return Bond Q	PTRQX	Retain		Apr-15
Fixed Income	Neuberger Berman High Income Bond Instl	NHILX	Retain		Jun-03
Balanced	Vanguard Balanced Index Instl	VBAIX	Retain		Apr-12
Target Date	T. Rowe Price Retirement Balanced	TRRIX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2005	TRRFX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2010	TRRAX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2015	TRRGX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2020	TRRBX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2025	TRRHX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2030	TRRCX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2035	TRRJX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2040	TRRDX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2045	TRRKX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2050	TRRMX	Retain		Oct-11
Target Date	T. Rowe Price Retirement 2055	TRRNX	Retain		Oct-11
Large Value	Vanguard Equity-Income Adm	VEIRX	Retain		Jun-13
Large Blend	Parnassus Core Equity Instl	PRILX	Retain		Apr-15
Large Blend	Vanguard Institutional Index I	VINIX	Retain		May-05
Large Growth	Fidelity Contrafund	FCNTX	Retain		Apr-97
Mid Value	MFS Mid Cap Value R6	MVCKX	Retain		Mar-14
Mid Blend	Vanguard Mid Cap Index Adm	VIMAX	Retain		Aug-16
Mid Growth	Janus Enterprise N	JDMNX	Retain		Oct-16
Small Value	Neuberger Berman Genesis Tr	NBGEX	Retain		Apr-98
Small Blend	Vanguard Small Cap Index Instl	VSCIX	Retain		Sep-06
Small Growth	Vanguard Small Cap Growth Index Instl	VSGIX	Retain		Sep-10
International	American Funds New Perspective R6	RNPGX	Retain		Jul-04
International	Franklin Mutual Global Discovery Z	MDISX	Retain		Sep-03
International	Dodge & Cox International Stock	DODFX	Retain		Sep-06
International	Artisan International Inv	ARTIX	Retain		Jun-02
International	Oppenheimer Developing Markets Y	ODVYX	Retain		Nov-12



### **Asset Allocation**

# of			% of	# of
Options	Options	Plan Assets	Plan	Participants
1	State of Montana Stable Value	\$237,882,450	50.7%	
	Total Stable Value Fund	\$237,882,450	51%	
	Prudential Total Return Bond Q	\$6,443,289	1.4%	1,617
2	Neuberger Berman High Income Bond Instl	\$3,604,638	<1%	609
	Total Bond Funds	\$10,047,927	2%	
	Vanguard Balanced Index Insti	\$19,989,269	4.3%	1,819
	T. Rowe Price Retirement Balanced	\$586,249	<1%	65
	T. Rowe Price Retirement 2005	\$266,385	<1%	34
	T. Rowe Price Retirement 2010	\$1,339,487	<1%	79
	T. Rowe Price Retirement 2015	\$2,655,605	<1%	150
	T. Rowe Price Retirement 2020	\$7,501,661	1.6%	357
13	T. Rowe Price Retirement 2025	\$5,789,044	1.2%	420
10	T. Rowe Price Retirement 2030	\$3,808,475	<1%	396
	T. Rowe Price Retirement 2035	\$4,226,369	<1%	469
	T. Rowe Price Retirement 2040	\$2,487,697	<1%	389
	T. Rowe Price Retirement 2045	\$1,733,244	<1%	383
	T. Rowe Price Retirement 2050	\$647,898	<1%	141
	T. Rowe Price Retirement 2055	\$529,757	<1%	127
	Total Target Date/Balanced Funds	\$51,561,139	11%	
	Vanguard Equity-Income Adm	\$19,195,796	4.1%	1,384
	Parnassus Core Equity Instl	\$3,258,968	<1%	498
	Vanguard Institutional Index I	\$30,287,641	6.5%	2,281
	Fidelity Contrafund	\$34,679,826	7.4%	2,151
	MFS Mid Cap Value R6	\$6,479,820	1.4%	738
10	Vanguard Mid Cap Index Adm	\$687,682	<1%	82
	Janus Enterprise N	\$9,726,061	2.1%	1,717
	Neuberger Berman Genesis Tr	\$13,786,859	2.9%	1,850
	Vanguard Small Cap Index Instl	\$7,053,859	1.5%	684
	Vanguard Small Cap Growth Index Instl	\$8,638,502	1.8%	1,211
	Total U.S. Equity Funds	\$133,795,013	28%	
	American Funds New Perspective R6	\$13,127,876	2.8%	1,274
	Franklin Mutual Global Discovery Z	\$10,351,477	2.2%	891
E	Dodge & Cox International Stock	\$9,740,328	2.1%	1,520
5	Artisan International Inv	\$2,219,895	<1%	464
	Oppenheimer Developing Markets Y	\$745,416	<1%	195
	Total International Equity Funds	\$36,184,992	8%	
	TOTAL	\$469,471,520		



# Range of Investment Options

Lower Expected Lower Expected							expected Risk/ Dected Return
Stable Value	Fixed Income/ Bond	Target Date/ Balanced		Domestic Equit	у	Global/ Int'l Equity	Other
State of Montana     Stable Value	1. Prudential Total Return Bond Q	1. Vanguard Balanced ldx Instl	Large Value	Large Blend	Large Growth	1. American Funds New Perspective R6	
	<ol><li>Neuberger</li><li>Berman High</li><li>Income Bond</li></ol>	2. T. Rowe Price Retirement	Vanguard     Equity Income     Adm	1. Vanguard Instl ldx l	Fidelity Contrafund	2. Franklin Mutual Global Discovery Z	
	Instl	Series (12)		2. Parnassus Core Equity Instl*		3. Dodge & Cox Intl Stock	
			Mid Value	Mid Blend	Mid Growth	4. Artisan Intl Inv	
			1. MFS Mid Cap Value R6	1. Vanguard Mid Cap Idx Adm	1. Janus Enterprise N	5. Oppenheimer Developing Mkts Y	
			Small Value	Small Blend	Small Growth		
			1. Neuberger Berman Genesis Tr	Vanguard     Small Cap ldx     Instl	Vanguard     Small Cap     Growth ldx Instl		

<sup>\*</sup>SRI investment option



As of March 31, 2017

	YTD	(1	periods lor	ger than 1		Standard	Deviation	Expense		
Fund/Benchmark	4/17/17	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	3 Years	5 Years	
State of Montana Stable Value (net)	-	0.72	0.72	0.51	1.74	1.52	3.66	-	-	0.40
Barclays US Govt/Credit Interm +0.35%	-	0.87	0.87	0.77	2.36	2.23	4.11	-	-	-
Prudential Total Return Bond Q	2.75	1.84	1.84	3.43	3.83	4.06	5.89	3.58	3.69	0.44
Barclays US Agg Bond	1.67	0.82	0.82	0.44	2.68	2.34	4.27	2.94	2.88	-
Avg Intermediate-Term Bond	1.82	1.07	1.07	1.74	2.41	2.52	4.06	2.84	2.92	0.78
Neuberger Berman High Income Bond Instl	2.59	2.32	2.32	13.50	3.22	5.86	7.20	5.65	5.35	0.69
BofAML US HY Master II Constnd	3.00	2.71	2.71	16.87	4.64	6.85	7.43	6.10	5.38	-
Avg High Yield Bond	2.55	2.31	2.31	13.52	3.15	5.56	5.86	5.46	5.10	1.07

Green indicates fund outperformed both benchmarks / Blue indicates fund performed between benchmarks / Red indicates fund underperformed both benchmarks



	YTD	(1	periods lon	ger than 1	year are a	nnualized	)	Standard	Deviation	Expense
Fund/Benchmark	4/17/17	3 Months	YTD	1 Yr	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	
T. Rowe Price Retirement Balanced	3.51	3.39	3.39	7.68	3.83	5.14	4.72	4.83	4.90	0.57
DJ Target Today	2.04	1.61	1.61	2.08	1.94	2.52	4.05	2.87	2.94	-
Avg Allocation - 30% to 50% Equity	3.24	2.99	2.99	8.03	3.25	5.13	4.25	5.26	5.26	1.21
T. Rowe Price Retirement 2005	3.65	3.42	3.42	7.77	4.10	5.59	4.89	5.03	5.22	0.60
DJ Target 2005	2.05	1.62	1.62	2.08	1.95	2.57	3.98	2.89	2.97	-
Avg Target Date 2000-2010	3.34	3.08	3.08	7.24	3.60	5.20	3.87	4.94	5.05	0.76
T. Rowe Price Retirement 2010	3.92	3.75	3.75	8.55	4.42	6.19	4.97	5.50	5.78	0.59
DJ Target 2010	2.19	1.74	1.74	2.28	2.13	3.01	3.95	3.18	3.25	-
Avg Target Date 2000-2010	3.34	3.08	3.08	7.24	3.60	5.20	3.87	4.94	5.05	0.76
T. Rowe Price Retirement 2015	4.37	4.23	4.23	9.68	4.87	7.05	5.31	6.32	6.66	0.62
DJ Target 2015	2.77	2.22	2.22	3.18	2.69	3.85	4.06	3.90	3.93	-
Avg Target Date 2015	3.58	3.38	3.38	8.01	3.74	5.80	4.30	5.53	5.76	0.79
T. Rowe Price Retirement 2020	5.05	5.00	5.00	11.14	5.33	7.87	5.53	7.19	7.47	0.66
DJ Target 2020	3.50	2.84	2.84	4.81	3.25	4.87	4.30	4.57	4.76	-
Avg Target Date 2020	3.77	3.57	3.57	8.54	3.82	5.72	3.90	5.81	5.96	0.86
T. Rowe Price Retirement 2025	5.61	5.61	5.61	12.31	5.72	8.58	5.72	7.96	8.25	0.69
DJ Target 2025	4.00	3.50	3.50	6.96	3.94	6.00	4.66	5.58	5.85	-
Avg Target Date 2025	4.37	4.27	4.27	10.10	4.31	6.77	4.36	6.86	7.07	0.84
T. Rowe Price Retirement 2030	6.08	6.08	6.08	13.35	6.07	9.18	5.90	8.61	8.85	0.72
DJ Target 2030	4.60	4.34	4.34	9.53	4.69	7.14	5.01	6.86	7.10	-
Avg Target Date 2030	4.78	4.76	4.76	11.49	4.65	7.12	4.21	7.74	7.83	0.89



	YTD	(1	periods lor	nger than 1	l year are a	1	Standard Deviation			
Fund/Benchmark	4/17/17	3 Months	YTD	1 Yr	3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	Expense Ratio
T. Rowe Price Retirement 2035	6.51	6.57	6.57	14.21	6.31	9.60	6.02	9.19	9.41	0.74
DJ Target 2035	5.12	5.07	5.07	11.84	5.24	8.06	5.29	8.11	8.28	-
Avg Target Date 2035	5.26	5.35	5.35	12.76	5.00	7.91	4.71	8.63	8.72	0.86
T. Rowe Price Retirement 2040	6.81	6.89	6.89	14.90	6.46	9.88	6.17	9.67	9.79	0.76
DJ Target 2040	5.55	5.66	5.66	13.74	5.68	8.76	5.56	9.13	9.20	-
Avg Target Date 2040	5.43	5.57	5.57	13.47	5.14	7.96	4.43	9.06	9.11	0.91
T. Rowe Price Retirement 2045	6.91	7.04	7.04	15.12	6.54	9.92	6.20	9.68	9.81	0.76
DJ Target 2045	5.84	6.07	6.07	15.03	5.97	9.17	5.78	9.79	9.75	-
Avg Target Date 2045	5.66	5.87	5.87	13.97	5.31	8.44	4.81	9.45	9.50	0.87
T. Rowe Price Retirement 2050	6.85	6.93	6.93	15.08	6.52	9.91	6.18	9.68	9.79	0.76
DJ Target 2050	5.96	6.25	6.25	15.58	6.09	9.28	5.83	10.01	9.90	-
Avg Target Date 2050	5.66	5.84	5.84	14.15	5.37	8.32	4.53	9.48	9.56	0.91
T. Rowe Price Retirement 2055	6.83	6.99	6.99	15.16	6.53	9.91	6.18	9.70	9.81	0.76
DJ Target 2055	5.97	6.26	6.26	15.60	6.10	9.28	5.83	10.02	9.90	-
Avg Target Date 2055	5.76	6.01	6.01	14.22	5.50	8.76	6.18	9.58	9.68	0.87
Vanguard Balanced Index Instl	3.78	3.78	3.78	10.74	6.98	8.83	6.67	6.41	6.22	0.07
Custom Vanguard Bal Index (1)	3.80	3.81	3.81	10.89	7.11	8.97	6.98	6.41	6.22	-
Avg Allocation - 50% to 70% Equity	3.79	3.84	3.84	10.53	4.43	7.04	5.06	7.13	7.10	1.19
Barclays US Agg Bond	1.67	0.82	0.82	0.44	2.68	2.34	4.27	2.94	2.88	-
S&P 500	5.54	6.07	6.07	17.17	10.37	13.30	7.51	10.41	10.20	-

<sup>(1)</sup> Reflect's fund's index changes over time. 60% DJ US Total Market Index/40% Barclays US Agg Float Adj Index since 1/14/13.



	YTD	(1	periods Ion	ger than 1	Standard	Expense				
Fund/Benchmark	4/17/17	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	3 Years	5 Years	Ratio
Vanguard Equity-Income Adm	3.99	4.56	4.56	15.94	9.63	12.97	7.85	9.68	9.64	0.17
Russell 1000 Value	2.55	3.27	3.27	19.22	8.67	13.13	5.93	10.56	10.54	-
Avg Large Value	2.90	3.70	3.70	17.44	7.32	11.47	5.59	10.99	10.85	1.08
Parnassus Core Equity Institutional	3.46	4.43	4.43	12.54	9.39	13.73	9.78	9.37	9.48	0.66
Vanguard Institutional Index I	5.52	6.05	6.05	17.13	10.34	13.27	7.51	10.41	10.20	0.04
S&P 500	5.54	6.07	6.07	17.17	10.37	13.30	7.51	10.41	10.20	-
Avg Large Blend	4.89	5.57	5.57	15.97	8.14	11.74	6.52	10.77	10.67	1.01
Fidelity Contrafund	9.78	10.08	10.08	15.61	9.72	12.48	8.77	10.21	10.21	0.68
S&P 500	5.54	6.07	6.07	17.17	10.37	13.30	7.51	10.41	10.20	-
Avg Large Growth	8.13	8.63	8.63	14.85	8.53	11.55	7.71	11.74	11.60	1.15
MFS Mid Cap Value R6	3.04	3.60	3.60	15.59	7.75	13.45	7.42	11.40	10.89	0.74
Russell Mid Cap Value	3.39	3.76	3.76	19.82	8.94	14.07	7.47	11.15	10.88	_
Avg Mid Value	2.60	3.50	3.50	18.86	7.04	12.02	6.68	12.17	11.76	1.16
Vanguard Mid Cap Index Adm	5.54	6.19	6.19	16.74	8.68	12.88	7.82	11.40	11.15	0.06
Custom Vanguard MC Index (1)	5.56	6.20	6.20	16.80	8.73	12.93	7.86	11.40	11.15	_
Avg Mid Blend	3.10	4.18	4.18	17.17	6.34	11.50	6.71	12.13	11.77	1.13
Janus Enterprise N	6.14	7.18	7.18	16.95	10.99	13.52	9.68	10.84	10.23	0.68
Russell Mid Cap Growth	5.79	6.89	6.89	14.07	7.88	11.95	8.13	11.87	11.56	-
Avg Mid Growth	6.18	7.30	7.30	15.58	6.06	10.30	7.12	12.84	12.34	1.25

<sup>(1)</sup> Reflects changes to fund's index over time. S&P MidCap 400 Index through 5/15/2003; MSCI US MidCap 450 Index through 1/30/2013; and the CRSP US Mid Cap Index thereafter.



	YTD	(	periods lon	ger than 1	year are a	nnualized)		Standard Deviation		
Fund/Benchmark	4/17/17	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	3 Years	5 Years	Expense Ratio
Neuberger Berman Genesis Tr	0.85	2.95	2.95	19.65	7.13	11.31	8.59	12.31	11.53	1.10
Russell 2000	0.67	2.47	2.47	26.22	7.22	12.35	7.12	15.68	14.36	-
Avg Small Value	-1.59	0.29	0.29	23.43	6.11	11.38	6.43	14.86	13.89	1.31
Vanguard Small Cap Index Insti	2.52	3.74	3.74	21.52	7.42	12.91	8.23	13.56	12.78	0.05
Custom Vanguard SC Index (1)	2.52	3.74	3.74	21.47	7.39	12.87	8.13	13.56	12.77	-
Avg Small Blend	0.03	1.77	1.77	22.08	5.98	11.30	6.60	14.65	13.74	1.22
Vanguard Small Cap Growth Index Instl	5.09	6.03	6.03	19.71	5.44	11.23	8.36	13.96	13.21	0.06
Custom Vanguard SC Growth Index (2)	5.09	6.02	6.02	19.61	5.35	11.05	8.12	13.95	13.19	-
Avg Small Growth	3.94	5.56	5.56	22.41	5.34	10.73	7.31	15.66	14.49	1.31
American Funds New Perspective R6	9.62	9.60	9.60	14.74	6.89	10.66	6.82	10.61	10.90	0.45
MSCI ACWI	6.65	6.91	6.91	15.04	5.08	8.37	4.00	10.79	11.06	-
Franklin Mutual Global Discovery Z	3.53	4.43	4.43	19.58	5.49	9.78	5.77	9.72	9.57	0.98
MSCI World	6.02	6.38	6.38	14.77	5.52	9.37	4.21	10.63	10.95	-
Avg World Stock	7.12	7.34	7.34	13.68	4.12	8.27	4.11	11.13	11.57	1.27
Dodge & Cox International Stock	8.06	9.32	9.32	22.97	0.72	7.32	2.52	14.51	14.80	0.64
MSCI EAFE	7.04	7.25	7.25	11.67	0.50	5.83	1.05	12.23	13.21	-
Avg Foreign Large Blend	7.70	7.74	7.74	10.88	0.40	5.02	0.96	11.63	12.58	1.10
Artisan International Inv	9.18	8.98	8.98	2.15	-1.53	4.96	2.05	11.93	12.44	1.19
MSCI EAFE	7.04	7.25	7.25	11.67	0.50	5.83	1.05	12.23	13.21	-
Avg Foreign Large Growth	9.72	9.16	9.16	8.60	1.07	5.49	1.90	11.57	12.23	1.24
Oppenheimer Developing Markets Y	11.35	11.04	11.04	15.46	-0.14	2.34	5.39	14.87	14.66	1.07
MSCIEM	12.03	11.45	11.45	17.22	1.18	0.81	2.72	16.11	15.33	-
Avg Diversified Emerging Mkts	12.27	11.59	11.59	16.40	0.71	1.20	2.22	14.88	14.65	1.48

<sup>(1)</sup> Reflects changes to fund's index over time. Russell 2000 Index through 5/16/03; MSCI US Small Cap 1750 Index through 1/30/13; and the CRSP US Small Cap Index thereafter.

<sup>(2)</sup> Reflects changes to fund's index over time. S&P SmallCap 600 Growth Index through 5/16/03; MSCI US Small Cap Growth Index through 4/16/13; and the CRSP US Small Cap Growth Index thereafter.



# Modern Portfolio Theory (MPT) Analytics

As of March 31, 2017

			5	- Year			10 Year
			Tracking	Information	Upside	Downside	Batting
Fund/Benchmark	Alpha	Beta	Error	Ratio	Capture	Capture	Average
Vanguard Equity-Income Adm	0.74	0.92	2.53	-0.13	95	91	43
Avg Large Value	-1.55	1.00	3.73			106	43
Parnassus Core Equity Institutional	1.85	0.88	3.26	0.13	96	85	53
Vanguard Institutional Index I	-0.03	1.00	0.01	-2.22	100	100	37
Avg Large Blend	-1.49	1.01	2.51	-1.46	96	107	42
Fidelity Contrafund	0.31	0.92	4.10	-0.20	92	89	56
Avg Large Growth	-1.81	1.03	4.78	-0.39	96	108	51
MFS Mid Cap Value R6	0.35	0.99	4.09	0.04	100	99	54
Avg Mid Value	-1.40	1.03	5.22	-0.24	99	111	49
Vanguard Mid Cap Index Adm	-0.68	1.03	3.69	-0.12	100	105	55
Avg Mid Blend	-1.68	1.02	5.62	-0.32	96	110	49
Janus Enterprise N	1.64	0.89	4.87	0.05	93	82	54
Avg Mid Growth	-3.04	1.04	6.19	-0.48	93	115	51
Neuberger Berman Genesis Tr	-1.03	0.95	6.22	-0.32	91	100	53
Avg Small Value	-2.33	1.08	8.49		102	123	50
Vanguard Small Cap Index Insti	-1.42	1.11	6.10	-0.07	107	121	55
Avg Small Blend	-2.71	1.10	7.94	-0.25	102	126	51
Vanguard Small Cap Growth Index Instl	-2.82	1.10	7.01	-0.30	103	127	56
Avg Small Growth	-3.28	1.12	9.02	-0.28	101	130	53
American Funds New Perspective R6	6.74	0.78	5.00	1.26	96	57	56
Franklin Mutual Global Discovery Z	6.46	0.65	6.47	0.84	85	48	55
Avg World Stock	4.59	0.79	6.15	0.65	91	65	54
Dodge & Cox International Stock	2.60	1.10	4.49	0.66	121	108	56
Avg Foreign Large Blend	0.94	0.93	3.89	0.17	96	91	48
Artisan International Inv	1.15	0.87	5.53	0.11	92	87	48
Avg Foreign Large Growth	1.59	0.88	4.77	0.24	92	83	51
Oppenheimer Developing Markets Y	-1.85	1.03	6.24	-0.32	96	108	61
Avg Diversified Emerging Mkts	-2.73	0.98	7.52	-0.42	90	107	52

Reported modern portfolio theory (MPT) statistics are calculated with respect to the S&P 500 Index for domestic equity funds and the MSCI EAFE Index for international equity funds.



### Stable Value and Bond Funds

Annual Net-of-Fee Total Returns

Fund/Benchmark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
State of Montana Stable Value	2.13	0.84	2.15	-1.95	4.82	5.04	6.47	13.71	-3.45	9.35
Barclays US Govt/Credit Interm +0.35%	2.43	1.42	3.48	-0.51	4.24	6.15	6.24	5.59	5.43	7.74
Prudential Total Return Bond Q	4.83	0.09	7.25	-0.91	9.96	7.93	9.73	19.68	-3.55	5.42
Barclays US Agg Bond	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	5.24	6.97
Avg Intermediate-Term Bond	3.22	-0.26	5.18	-1.42	7.01	5.86	7.72	13.97	-4.70	4.70
Neuberger Berman High Income Bond Instl	14.17	-4.77	1.51	7.57	14.64	3.12	14.71	<b>52.16</b>	-19.09	1.61
BofAML US HY Master II Constnd	17.49	-4.61	2.51	7.41	15.55	4.37	15.07	58.10	-26.11	2.53
Avg High Yield Bond	13.23	-4.01	1.11	6.90	14.67	2.83	14.24	46.70	-26.41	1.47

Green indicates fund outperformed both benchmarks / Blue indicates fund performed between benchmarks / Red indicates fund underperformed both benchmarks



# Target Date Funds Annual Net-of-Fee Total Returns

Fund/Benchmark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
T. Rowe Price Retirement Balanced	6.48	-0.74	3.91	9.15	10.05	1.43	10.10	22.07	-18.39	6.09
DJ Target Today	3.01	-0.63	3.86	1.41	5.44	5.26	8.53	10.83	-3.06	6.48
Avg Allocation - 30% to 50% Equity	6.63	-2.32	4.02	7.23	9.40	1.70	10.03	20.77	-18.61	4.53
T. Rowe Price Retirement 2005	6.72	-0.75	4.72	9.74	11.35	1.43	11.51	24.55	-22.24	6.67
DJ Target 2005	3.00	-0.63	3.92	1.54	5.66	5.15	8.90	11.89	-5.47	6.84
Avg Target Date 2000-2010	5.90	-1.18	4.10	8.30	9.61	0.91	10.68	22.42	-22.46	5.22
T. Rowe Price Retirement 2010	7.11	-0.76	4.99	11.93	12.44	0.54	12.70	27.95	-26.71	6.65
DJ Target 2010	3.33	-0.72	4.20	3.00	6.40	4.49	9.71	14.11	-10.81	7.73
Avg Target Date 2000-2010	5.90	-1.18	4.10	8.30	9.61	0.91	10.68	22.42	-22.46	5.22
T. Rowe Price Retirement 2015	7.31	-0.58	5.37	15.18	13.81	-0.32	13.79	31.35	-30.22	6.75
DJ Target 2015	4.51	-0.97	4.48	5.49	7.65	3.42	10.94	17.32	-16.65	7.78
Avg Target Date 2015	6.02	-1.34	4.48	9.65	10.65	-0.27	11.50	23.55	-27.76	5.84
T. Rowe Price Retirement 2020	7.41	-0.31	5.63	18.05	15.01	-1.20	14.74	34.19	-33.48	6.73
DJ Target 2020	5.27	-1.04	4.81	9.05	9.23	2.01	12.42	20.95	-22.31	8.11
Avg Target Date 2020	6.12	-1.57	4.72	11.57	11.68	-0.22	12.27	24.25	-29.46	6.02
T. Rowe Price Retirement 2025	7.55	-0.17	5.84	20.78	16.00	-2.06	15.37	36.29	-35.90	6.81
DJ Target 2025	6.39	-1.11	5.14	12.84	10.94	0.49	14.12	25.36	-27.61	8.31
Avg Target Date 2025	6.61	-1.59	5.07	15.30	13.03	-2.06	13.29	28.32	-34.15	6.52
T. Rowe Price Retirement 2030	7.69	-0.02	6.05	23.09	16.82	-2.70	16.01	37.99	-37.79	6.83
DJ Target 2030	7.50	-1.21	5.50	16.59	12.56	-1.20	15.67	29.50	-32.02	8.43
Avg Target Date 2030	7.21	-1.79	5.04	16.65	13.59	-2.26	13.47	28.87	-36.04	6.50



# Target Date Funds Annual Net-of-Fee Total Returns

Fund/Benchmark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
T. Rowe Price Retirement 2035	7.64	0.13	6.07	24.86	17.35	-3.26	16.34	39.04	-38.88	6.81
DJ Target 2035	8.49	-1.61	5.80	19.90	13.92	-2.62	16.89	32.71	-35.15	8.48
Avg Target Date 2035	7.45	-1.76	5.24	20.00	14.64	-3.51	14.28	30.06	-37.04	7.02
T. Rowe Price Retirement 2040	7.63	0.17	6.18	25.93	17.55	-3.49	16.51	39.07	-38.85	6.77
DJ Target 2040	9.30	-1.94	6.03	22.38	14.88	-3.59	17.67	34.64	-36.80	8.48
Avg Target Date 2040	7.84	-1.99	5.25	19.97	14.64	-3.49	14.37	30.90	-37.94	6.21
T. Rowe Price Retirement 2045	7.69	0.17	6.14	25.93	17.62	-3.47	16.44	39.10	-38.83	6.84
DJ Target 2045	9.85	-2.15	6.16	23.71	15.32	-3.99	17.95	35.09	-37.03	8.46
Avg Target Date 2045	7.78	-1.87	5.35	22.00	15.31	-4.10	14.60	30.88	-38.11	6.89
T. Rowe Price Retirement 2050	7.71	0.19	6.19	25.90	17.55	-3.36	16.41	38.92	-38.80	6.82
DJ Target 2050	10.10	-2.23	6.19	23.89	15.35	-4.00	17.95	35.09	-37.03	8.46
Avg Target Date 2050	8.15	-2.01	5.42	21.02	15.07	-3.82	14.53	32.02	-38.67	5.91
T. Rowe Price Retirement 2055	7.73	0.18	6.18	25.86	17.60	-3.35	16.41	38.97	-38.89	6.82
DJ Target 2055	10.11	-2.23	6.19	23.89	15.35	-4.00	17.95	35.09	-37.03	8.47
Avg Target Date 2055	7.83	-1.71	5.49	23.14	15.52	-4.13	14.45	32.20	-38.86	5.94
Vanguard Balanced Index Instl	8.81	0.52	10.00	18.11	11.51	4.31	13.34	20.18	-22.10	6.34
Custom Vanguard Bal Index	8.89	0.76	10.06	18.25	11.71	4.66	13.45	20.34	-20.94	6.53
Avg Allocation - 50% to 70% Equity	7.32	-1.93	6.21	16.48	11.72	-0.11	11.83	24.13	-28.00	5.99
Barclays US Agg Bond	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93	5.24	6.97
S&P 500	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46	-37.00	5.49



# Large and Mid-Cap Stock Funds Annual Net-of-Fee Total Returns

Fund/Benchmark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Vanguard Equity-Income Adm	14.82	0.86	11.38	30.19	13.58	10.69	14.99	17.26	-30.86	4.99
Russell 1000 Value	17.34	-3.83	13.45	32.53	17.51	0.39	15.51	19.69	-36.85	-0.17
Avg Large Value	14.73	-4.05	10.21	31.21	14.57	-0.75	13.66	24.13	-37.09	1.42
Parnassus Core Equity Institutional	10.60	-0.33	14.70	34.15	15.64	3.38	9.10	28.96	-22.74	14.37
Vanguard Institutional Index I	11.93	1.37	13.65	32.35	15.98	2.09	15.05	26.63	-36.95	5.47
S&P 500	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46	-37.00	5.49
Avg Large Blend	10.36	-1.07	10.96	31.50	14.96	-1.27	14.01	28.17	-37.79	6.16
Fidelity Contrafund	3.37	6.46	9.56	34.15	16.26	-0.14	16.93	29.23	-37.16	19.78
S&P 500	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46	-37.00	5.49
Avg Large Growth	3.19	3.60	10.00	33.92	15.34	-2.46	15.53	35.68	-40.67	13.35
MFS Mid Cap Value R6	15.86	-2.14	10.29	36.63	18.52	-2.04	27.08	39.75	-41.90	1.67
Russell Mid Cap Value	20.00	-4.78	14.75	33.46	18.51	-1.38	24.75	34.21	-38.44	-1.42
Avg Mid Value	18.08	-5.41	9.31	35.14	16.60	-3.96	21.92	35.41	-36.77	0.83
Vanguard Mid Cap Index Adm	11.22	-1.34	13.76	35.15	15.99	-1.97	25.59	40.48	-41.78	6.17
Custom Vanguard MC Index	11.25	-1.28	13.83	35.21	16.04	-1.91	25.69	40.49	-41.80	6.19
Avg Mid Blend	14.11	-4.75	7.80	34.10	16.15	-3.81	22.52	37.39	-39.18	4.85
Janus Enterprise N	12.18	3.57	12.19	30.94	17.79	-1.78	25.93	42.90	-43.13	21.81
Russell Mid Cap Growth	7.33	-0.20	11.90	35.74	15.81	-1.65	26.38	46.29	-44.32	11.43
Avg Mid Growth	6.03	-0.95	7.00	34.93	14.07	-3.96	24.61	39.11	-43.77	15.09



# Small Cap and International Stock Funds

. Annual Net-of-Fee Total Returns

Fund/Benchmark	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Neuberger Berman Genesis Tr	18.06	0.15	-0.31	36.89	9.82	4.60	21.38	26.25	-32.85	21.80
Russell 2000	21.31	-4.41	4.89	38.82	16.35	-4.18	26.85	27.17	-33.79	-1.57
Avg Small Value	25.90	-6.71	3.34	36.22	16.00	-4.45	26.17	31.32	-32.24	-6.08
Vanguard Small Cap Index Instl	18.32	-3.63	7.53	37.80	18.26	-2.65	27.95	36.40	-35.98	1.29
Custom Vanguard SC Index	18.26	-3.68	7.54	37.77	18.20	-2.75	27.82	36.15	-36.20	1.20
Avg Small Blend	20.71	-5.38	3.79	37.39	15.46	-4.07	25.61	31.80	-36.56	-1.10
Vanguard Small Cap Growth Index Instl	10.74	-2.52	4.04	38.20	17.68	-1.40	30.96	42.13	-39.91	9.78
Custom Vanguard SC Growth Index	10.62	-2.60	3.98	37.87	17.24	-1.64	30.58	41.79	-40.17	9.62
Avg Small Growth	11.12	-2.41	2.44	40.91	13.15	-3.55	26.98	35.46	-41.55	7.59
American Funds New Perspective R6	2.19	5.63	3.56	27.23	21.19	-7.33	13.11	37.73	-37.83	16.04
MSCI ACWI	7.86	-2.36	4.16	22.80	16.13	-7.35	12.67	34.63	-42.19	11.66
Franklin Mutual Global Discovery Z	12.86	-3.36	5.33	25.64	13.65	-2.68	11.37	21.31	-26.55	11.32
MSCI World	7.51	-0.87	4.94	26.68	15.83	-5.54	11.76	29.99	-40.71	9.04
Avg World Stock	5.50	-1.69	2.79	25.19	15.84	-7.93	13.74	35.27	-41.91	11.28
Dodge & Cox International Stock	8.26	-11.35	0.08	26.31	21.03	-15.97	13.69	47.46	-46.69	11.71
MSCI EAFE	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78	-43.38	11.17
Avg Foreign Large Blend	0.79	-1.59	-4.98	19.44	18.29	-13.97	10.24	31.24	-43.99	12.71
Artisan International Inv	-9.66	-3.85	-0.97	25.18	25.39	-7.26	5.91	39.77	-46.96	19.73
MSCI EAFE	1.00	-0.81	-4.90	22.78	17.32	-12.14	7.75	31.78	-43.38	11.17
Avg Foreign Large Growth	-2.22	0.95	-3.92	18.58	17.70	-12.30	14.78	38.02	-46.56	16.26
Oppenheimer Developing Markets Y	7.17	-13.84	-4.55	8.68	21.29	-17.85	27.39	82.10	-47.84	34.30
MSCIEM	11.19	-14.92	-2.19	-2.60	18.22	-18.42	18.88	78.51	-53.33	39.42
Avg Diversified Emerging Mkts	8.45	-13.79	-3.01	-0.14	18.15	-19.86	19.26	73.81	-54.44	36.68



# Peer Group Rankings

As of March 31, 2017

Yellow shading indicates above median performance in Morningstar peer group (1 = Best Ranking / 100 = Worst Ranking)

Fund	Morningstar Category	3 Мо	YTD	1 Yr	3 Yr	5 Yr	10 Yr
Prudential Total Return Bond Q	Intermediate-Term Bond	5	5	14	3	3	2
Neuberger Berman High Income Bond Instl	High Yield Bond	51	51	50	51	41	8
T. Rowe Price Retirement Balanced	Allocation - 30% to 50% Equity	27	27	53	33	49	33
T. Rowe Price Retirement 2005	Target Date 2000-2010	17	17	32	25	37	5
T. Rowe Price Retirement 2010	Target Date 2000-2010	7	7	19	12	8	1
T. Rowe Price Retirement 2015	Target Date 2015	7	7	14	6	3	1
T. Rowe Price Retirement 2020	Target Date 2020	2	2	7	2	2	1
T. Rowe Price Retirement 2025	Target Date 2025	2	2	8	1	5	3
T. Rowe Price Retirement 2030	Target Date 2030	2	2	10	4	4	4
T. Rowe Price Retirement 2035	Target Date 2035	2	2	13	6	5	8
T. Rowe Price Retirement 2040	Target Date 2040	2	2	14	5	3	4
T. Rowe Price Retirement 2045	Target Date 2045	2	2	17	6	5	8
T. Rowe Price Retirement 2050	Target Date 2050	3	3	24	7	6	10
T. Rowe Price Retirement 2055	Target Date 2055	3	3	21	9	9	1
Vanguard Balanced Index Instl	Allocation - 50% to 70% Equity	54	54	37	6	14	11



# Peer Group Rankings

As of March 31, 2017

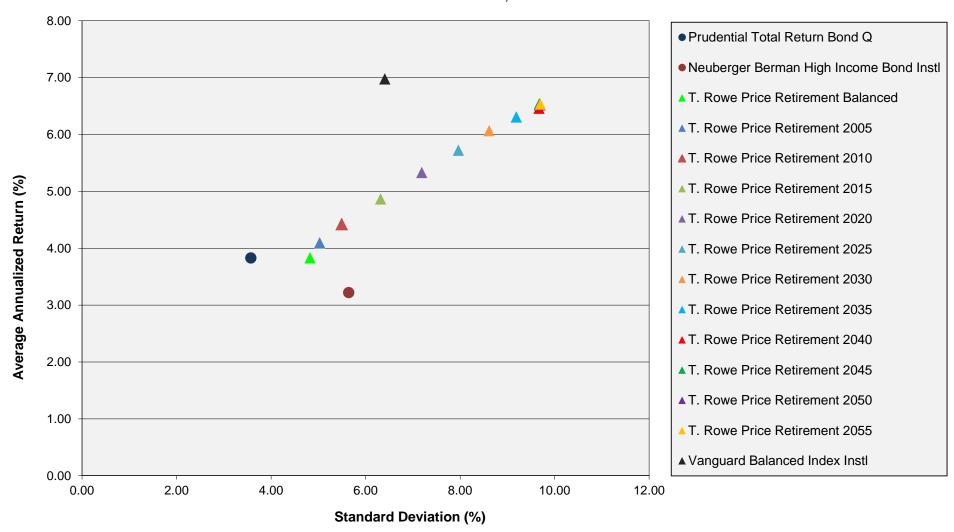
Yellow shading indicates above median performance in Morningstar peer group (1 = Best Ranking / 100 = Worst Ranking)

Fund	Morningstar Category	3 Mo	YTD	1 Yr	3 Yr	5 Yr	10 Yr
Vanguard Equity-Income Adm	Large Value	21	21	67	7	14	4
Parnassus Core Equity Institutional	Large Blend	83	83	87	31	4	1
Vanguard Institutional Index I	Large Blend	30	30	33	6	10	19
Fidelity Contrafund	Large Growth	26	26	39	31	32	22
MFS Mid Cap Value R6	Mid-Cap Value	44	44	83	38	19	26
Vanguard Mid Cap Index Adm	Mid-Cap Blend	11	11	58	21	25	32
Janus Enterprise N	Mid-Cap Growth	48	48	34	2	8	9
Neuberger Berman Genesis Tr	Small Growth	85	85	76	27	39	17
Vanguard Small Cap Index Instl	Small Blend	15	15	56	33	25	15
Vanguard Small Cap Growth Index Instl	Small Growth	45	45	75	51	41	22
American Funds New Perspective R6	World Stock	12	12	33	10	9	5
Franklin Mutual Global Discovery Z	World Stock	95	95	7	26	18	14
Dodge & Cox International Stock	Foreign Large Blend	9	9	1	42	7	15
Artisan International Inv	Foreign Large Growth	55	55	97	92	64	49
Oppenheimer Developing Markets Y	Diversified Emerging Mkts	65	65	60	69	25	2



#### Three Year Risk/Return Profile

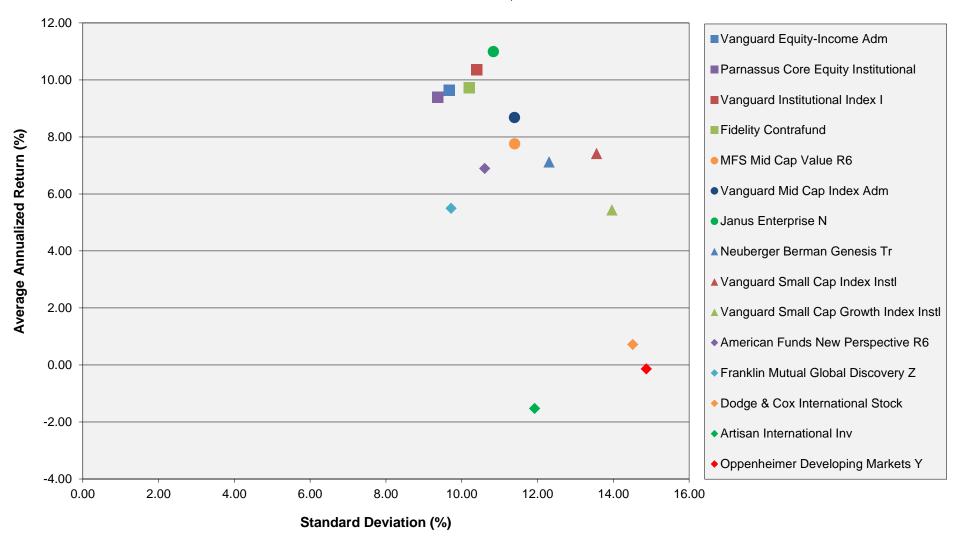
Bond and Target Date/Balanced Funds As of March 31, 2017





#### Three Year Risk/Return Profile

Equity Funds
As of March 31, 2017





# Stable Value Performance as of March 31, 2017

					Annualized		Management	Wrap
	Quarter	YTD	1 Year	3 Years	5 years	10 years	Fees	Fees
Montana Stable Value (market, gross)	0.76	0.76	0.71	1.97	1.77	3.93	0.20	0.20
Barclays US Govt/Credit Interm +0.35%	0.87	0.87	0.77	2.36	2.23	4.11	-	-

# Stable Value Portfolio Characteristics as of March 31, 2017

	Yield-to	Effective	Effective	Average	C	redit Q	uality Di	istributi	on (%)
	Maturity (%)	Duration	Maturity	Credit	<u>I</u> r	vestme	nt Grad	<u>le</u>	High Yield
		(years)	(years)	Quality	AAA	AA	Α	BBB	Below BBB
Montana Stable Value	2.56	3.93	4.33	AA	53	1	29	17	0
Barclays US Govt/Credit Interm	2.10	4.06	4.41	AA	64	6	13	17	-

### Market to Book Value Ratio

End of Month	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17
Market-to-Book Value Ratio (%)	103.3	104.1	103.0	103.2	104.2	102.9	103.0	101.7	103.4	104.3	104.1	101.3	101.4



### Fixed Income Portfolio Characteristics

Fund/Benchmark	Average Maturity (years)	Average Duration (years)	Average Credit Quality	Total Number of Holdings
Prudential Total Return Bond Q	7.6	6.2	BBB	2,161
BarCap Aggregate	8.2	6.0	AA	10,170
Avg Intermediate Term Bond	7.4	5.3	BBB	735
Neuberger Berman High Income Bond Instl	5.0	3.5	В	405
Avg High Yield Bond	5.4	3.5	В	580

		Investme	nt Grade		High	Other		
Fund/Benchmark	AAA	AA	Α	BBB	ВВ	В	Below B	NR/NA
Prudential Total Return Bond Q	32	9	19	20	10	5	0	5
BarCap Aggregate	72	5	10	14	0	0	0	0
Avg Intermediate Term Bond	48	8	17	20	4	1	1	1
Neuberger Berman High Income Bond Instl	3	0	0	9	51	30	8	0
Avg High Yield Bond	3	0	1	6	35	39	14	3



# **Equity Portfolio Style Characteristics**

As of March 31, 2017

Vanguard Equity-Income Adm

45	33	10
7	2	0
3	1	0

Parnassus Core Equity Institutional

29	18	28
11	9	2
1	0	1

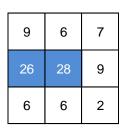
Vanguard Institutional Index I

29	30	28
5	5	3
0	0	0

Fidelity Contrafund

12	16	59
1	3	8
0	0	1

MFS Mid Cap Value R6



Vanguard Mid Cap Index Adm

2	5	6
29	31	28
0	0	0

Janus Enterprise N

2	4	18
4	21	43
2	2	4

Neuberger Berman Genesis Tr

	Tr	
0	0	1
1	10	32
6	20	29

Vanguard Small Cap Index Instl

0	0	0
11	13	20
19	19	19

Vanguard Small Cap Growth Index Instl

<u>Instl</u>		
0	0	0
4	10	32
6	13	35

American Funds New Perspective R6

R6			
13	19	56	
1	4	6	
0	0	0	

Franklin Mutual Global Discovery

	Z	
40	23	23
7	4	1
0	0	1

Dodge & Cox International Stock

34	42	20
1	2	0
0	0	0

Artisan International Inv

23	22	41
0	6	8
0	0	0

Oppenheimer Developing Markets Y

11	31	54
1	1	2
0	0	0

Style Legend

Large Value	Large Core	Large Growth	50% <	54
Mid Value	Mid Core	Mid Growth	25% <	27
Small Value	Small Core	Small Growth	10% <	19



# **Equity Portfolio Characteristics**

	Geo Avg			Total	% Assets in			
	Market Cap	P/E	P/B	Number of	Top 10	Turnover	% Non-	% Emerging
Fund/Benchmark	\$MM	Ratio	Ratio	Holdings	Holdings	Ratio	US Equity	Mkts Equity
Vanguard Equity-Income Adm	\$80,413	19.4	2.5	217	29	26	9	0
Russell 1000 Value	\$58,783	19.0	2.0	692	24			
Avg Large Value	\$91,252	19.8	2.2	-	32	59	5	0
Parnassus Core Equity Institutional	\$56,413	20.7	3.2	38	41	23	5	0
Vanguard Institutional Index I	\$85,360	21.1	3.0	516	18	5	1	0
S&P 500	\$85,703	21.3	3.0	505	19			
Avg Large Blend	\$112,812	22.3	3.0	-	31	59	3	0
Fidelity Contrafund	\$95,553	24.8	3.7	339	36	41	8	2
S&P 500	\$85,703	21.3	3.0	505	19			
Avg Large Growth	\$101,392	26.2	4.9	-	45	61	5	2
MFS Mid Cap Value R6	\$9,974	20.2	2.2	153	12	27	3	0
Russell Mid Cap Value	\$11,395	19.8	1.9	565	8			
Avg Mid Value	\$10,046	18.6	1.9	-	17	64	5	1
Vanguard Mid Cap Index Adm	\$12,491	23.2	2.7	352	7	15	1	0
CRSP US Mid Cap	\$12,548	22.9	2.6	343	7			
Avg Mid Blend	\$7,300	21.2	2.6	-	15	70	1	0
Janus Enterprise N	\$9,044	26.6	4.2	85	21	8	11	2
Russell Mid Cap Growth	\$11,818	26.1	5.0	470	10			
Avg Mid Growth	\$10,002	27.4	4.0	-	24	66	3	1



# **Equity Portfolio Characteristics**

	Geo Avg			Total	% Assets in			
	Market Cap	P/E	P/B	Number of	Top 10	Turnover	% Non-	% Emerging
Fund/Benchmark	\$MM	Ratio	Ratio	Holdings	Holdings	Ratio	<b>US Equity</b>	Mkts Equity
Neuberger Berman Genesis Tr	\$3,569	27.6	3.9	138	17	16	5	0
Russell 2000	\$1,772	21.9	2.2	1,946	3			
Avg Small Value	\$2,866	19.2	1.7	-	22	77	2	0
Vanguard Small Cap Index Instl	\$3,472	22.3	2.3	1,439	3	14	1	0
CRSP US Small Cap	\$3,436	21.9	2.3	1,413	3			
Avg Small Blend	\$3,042	22.3	2.4	-	23	64	2	0
Vanguard Small Cap Growth Index Instl	\$3,578	28.2	3.2	683	6	27	0	0
CRSP US Small Cap Growth	\$3,604	27.1	3.3	660	6			
Avg Small Growth	\$3,242	29.9	3.8	-	25	72	3	0
American Funds New Perspective R6	\$55,365	24.4	3.2	322	19	22	44	7
MSCIACWI	\$50,081	19.2	2.2	2,480	9			
Franklin Mutual Global Discovery Z	\$46,200	19.1	1.5	165	19	17	39	3
MSCI World	\$54,474	20.1	2.3	1,650	10			
Avg World Stock	\$51,399	20.5	2.3	-	22	57	40	5
Dodge & Cox International Stock	\$39,891	13.2	1.3	114	30	17	88	21
MSCIEAFE	\$33,022	18.4	1.6	929	11			
Avg Foreign Large Blend	\$38,636	18.3	1.8	-	13	61	91	6
Artisan International Inv	\$37,046	18.2	2.1	79	36	65	82	5
MSCIEAFE	\$33,022	18.4	1.6	929	11			
Avg Foreign Large Growth	\$30,249	21.2	2.5		12	57	92	10
Oppenheimer Developing Markets Y	\$26,431	20.5	2.9	95	36	18	92	74
MSCIEM	\$25,139	14.5	1.6	830	22			
Avg Diversified Emerging Mkts	\$22,549	15.4	2.0	-	20	68	93	71



# **Equity Portfolio Sector Allocation**

As of March 31, 2017

(yellow shading indicates largest sector allocation)

Fund/Benchmark	Energy	Materials	Industrials	Consumer Discretionary	Consumer Staples	Healthcare	Financials	Real Estate	Information Technology	Telecom Services	Utilities
Vanguard Equity-Income Adm	11.5	2.8	11.9	4.7	12.0	12.2	18.6	0.0	14.4	4.3	7.5
Russell 1000 Value	12.2	2.9	10.1	4.5	8.5	10.8	26.5	4.6	10.0	3.6	6.2
Avg Large Value	11.0	3.4	10.6	8.8	8.8	12.3	23.0	2.2	12.1	3.2	4.6
Parnassus Core Equity Institutional	3.4	5.3	12.0	6.9	13.5	20.4	11.4	2.3	22.8	0.0	2.1
Vanguard Institutional Index I	6.6	2.8	10.2	12.1	9.4	14.0	14.8	2.9	21.5	2.4	3.2
S&P 500	6.6	2.8	10.1	12.3	9.3	13.9	14.4	2.9	22.1	2.4	3.2
Avg Large Blend	6.9	3.4	11.0	12.6	9.2	14.6	15.0	2.4	20.4	1.9	2.6
Fidelity Contrafund	2.6	2.7	6.5	18.1	3.6	8.4	17.6	0.0	40.0	0.5	0.0
S&P 500	6.6	2.8	10.1	12.3	9.3	13.9	14.4	2.9	22.1	2.4	3.2
Avg Large Growth	2.9	2.3	9.9	19.4	6.8	16.1	5.6	1.8	34.6	0.3	0.4
MFS Mid Cap Value R6	7.9	5.4	14.5	10.9	6.0	8.5	23.8	5.9	9.5	0.0	7.8
Russell Mid Cap Value	9.6	6.1	12.9	8.6	3.3	4.1	19.6	13.9	9.5	1.2	11.2
Avg Mid Value	9.3	5.2	14.5	14.0	4.2	6.9	20.8	6.4	12.2	0.5	6.0
Vanguard Mid Cap Index Adm	4.7	6.2	12.7	16.8	5.4	9.4	14.1	7.3	17.6	0.7	5.1
CRSP US Mid Cap	4.8	6.2	12.7	16.6	5.2	9.2	14.1	7.7	17.8	8.0	5.0
Avg Mid Blend	5.4	9.0	13.3	11.3	4.2	8.6	16.7	8.2	18.9	0.7	3.6
Janus Enterprise N	0.9	2.3	18.8	11.4	0.0	19.3	7.9	5.1	34.3	0.0	0.0
Russell Mid Cap Growth	1.3	5.1	14.8	23.0	7.1	15.6	5.3	5.2	22.3	0.2	0.0
Avg Mid Growth	3.1	3.8	14.7	18.2	3.1	14.5	12.5	3.9	25.0	0.4	8.0



# **Equity Portfolio Sector Allocation**

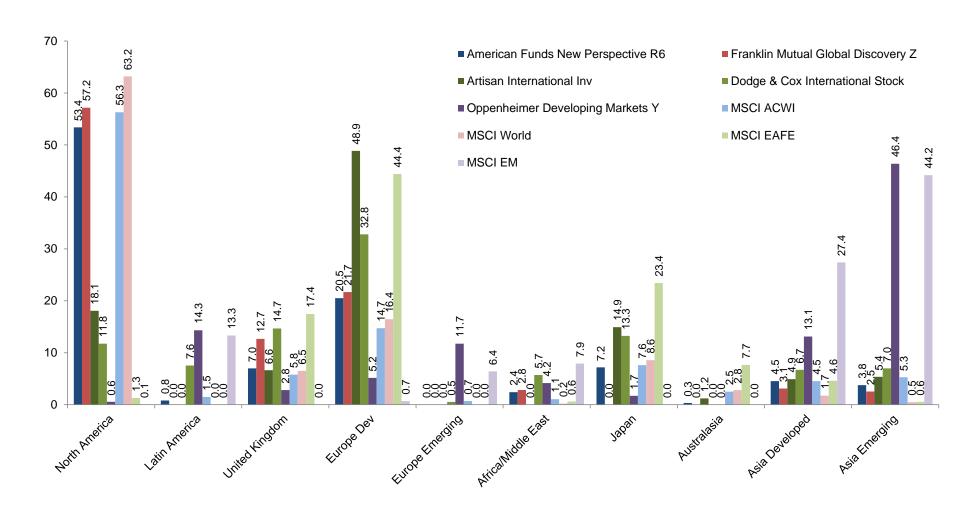
As of March 31, 2017

(yellow shading indicates largest sector allocation)

Fund/Benchmark	Energy	Materials	Industrials	Consumer Discretionary	Consumer Staples	Healthcare	Financials	Real Estate	Information Technology	Telecom Services	Utilities
Neuberger Berman Genesis Tr	2.5	8.6	21.4	11.8	6.1	13.6	17.6	0.0	18.4	0.0	0.0
Russell 2000	3.4	5.2	14.3	12.2	2.9	13.0	19.4	7.8	17.5	0.7	3.7
Avg Small Value	5.6	6.2	18.4	10.9	3.2	4.9	26.4	7.1	13.5	0.4	3.5
Vanguard Small Cap Index Instl	5.0	6.0	15.6	11.8	3.2	10.7	15.4	11.4	16.6	0.4	3.8
CRSP US Small Cap	5.0	6.1	15.5	12.4	3.4	10.9	14.8	11.0	16.6	0.4	4.0
Avg Small Blend	4.5	6.1	17.9	12.1	2.8	9.2	20.2	7.0	16.6	0.6	3.0
Vanguard Small Cap Growth Index Instl	4.6	3.4	13.2	14.5	2.8	15.8	7.0	14.7	23.2	0.4	0.5
CRSP US Small Cap Growth	4.8	3.4	13.4	14.6	2.9	16.4	6.9	13.3	23.2	0.4	0.5
Avg Small Growth	3.1	4.3	15.3	15.0	2.4	15.6	12.5	3.5	27.0	0.5	0.9
American Funds New Perspective R6	6.1	4.4	10.2	18.7	12.3	11.3	10.8	0.3	23.5	1.5	0.9
MSCI ACWI	6.6	5.3	10.7	12.1	9.5	11.1	18.4	3.1	16.4	3.4	3.2
Franklin Mutual Global Discovery Z	8.4	4.5	7.0	10.9	10.7	14.0	26.5	0.0	11.9	4.3	1.9
MSCI World	6.6	5.1	11.3	12.4	9.8	12.2	17.7	3.2	15.5	3.1	3.2
Avg World Stock	4.8	4.2	11.4	14.1	10.5	12.2	16.4	1.9	19.6	2.8	2.1
Dodge & Cox International Stock	8.6	4.4	8.2	19.2	0.3	13.9	24.5	1.5	15.8	3.7	0.0
MSCIEAFE	5.0	7.9	14.3	12.3	11.4	10.7	21.2	3.7	5.7	4.4	3.4
Avg Foreign Large Blend	5.8	8.3	13.4	12.0	11.3	10.3	20.6	2.8	8.5	4.5	2.5
Artisan International Inv	1.1	7.3	13.1	8.5	17.9	7.3	26.3	1.5	8.9	8.0	0.0
MSCIEAFE	5.0	7.9	14.3	12.3	11.4	10.7	21.2	3.7	5.7	4.4	3.4
Avg Foreign Large Growth	4.1	6.7	14.4	16.1	12.8	11.0	16.5	0.9	14.7	2.1	8.0
Oppenheimer Developing Markets Y	3.5	3.6	6.2	19.0	11.3	5.3	22.2	2.7	26.2	0.0	0.0
MSCIEM	7.2	7.5	5.9	10.4	6.9	2.4	24.1	2.5	24.5	5.7	2.8
Avg Diversified Emerging Mkts	6.3	6.3	4.9	11.5	10.6	3.4	23.8	2.7	23.4	4.9	2.3



# International Fund Regional Allocations





# International Fund Country Allocations

	Argentina	Australia	Austria	Belgium	Brazil	Canada	Chile	China	Czech Republic	Denmark	Finland	France	Germany	Greece	Hong Kong	Hungary	India	Indonesia	Ireland	Israel	Italy	Japan	Malaysia	Mexico	Netherlands
American Funds New Perspective R6		0.3		0.1	0.3	2.1		2.0		2.8	1.0	4.6	1.5		1.7		1.5		0.8			7.2		0.5	4.0
MSCI ACWI		2.4		0.4	0.9	3.2	0.1	3.4		0.5	0.3	3.1	3.1		1.0		1.0	0.3		0.2	0.6	7.6	0.3	0.4	1.2
Franklin Mutual Global Discovery Z						0.5		2.5		1.1	1.3	3.9	4.2							2.8	1.3				5.0
MSCI World		2.7		0.4		3.6		0.5		0.6	0.4	3.5	3.5		1.1					0.2	0.7	8.6			1.3

	New Zealand	Norway	Pakistan	Philippines	Poland	Portugal	Russia	Singapore	Slovakia	South Africa	South Korea	Spain	Sweden	Switzerland	Taiwan	Thailand	Turkey	United Kingdom	United States	Non-US	Venezuela	Vietnam	Lithuania	Latvia	Estonia
American Funds New Perspective R6		0.2						0.1		2.3	0.6	0.6			2.2					48.7					
MSCI ACWI		0.2		0.1	0.1		0.4	0.5		0.7	1.6	1.1	1.0	3.0	1.3	0.2	0.1	5.8	53.1	46.9					
Franklin Mutual Global Discovery Z								0.6			2.0			4.8				12.7	56.7	43.3					
MSCI World		0.2						0.6				1.2	1.1	3.4				6.5	59.6	40.4					



# International Fund Country Allocations

	Argentina	Australia	Austria	Belgium	Brazil	Canada	Chile	China	Czech Republic	Denmark	Finland	France	Germany	Greece	Hong Kong	Hungary	India	Indonesia	Ireland	Israel	Italy	Japan	Malaysia	Mexico	Netherlands
Artisan International Inv		1.2		1.2		3.8		4.9		0.5		5.7	22.0		2.7			0.3			4.4	14.9			6.0
Dodge & Cox International Stock					4.7	2.3		3.5				10.3	4.1		1.8		3.5		0.2		0.7	13.3		2.8	2.4
MSCI EAFE		7.5	0.2	1.2				0.5		1.6	1.0	9.7	9.5		3.1				0.2	0.6	1.8	23.4			3.5

	New Zealand	Norway	Pakistan	Philippines	Poland	Portugal	Russia	Singapore	Slovakia	South Africa	South Korea	Spain	Sweden	Switzerland	Taiwan	Thailand	Turkey	United Kingdom	United States	Non-US	Venezuela	Vietnam	Lithuania	Latvia	Estonia
Artisan International Inv												1.7	1.3	6.0	2.2	0.2		6.6	14.3	85.7					
Dodge & Cox International Stock										5.4	5.0	1.8	2.2	11.3			0.5	14.7	9.5	90.5					
MSCI EAFE	0.2	0.6				0.2		1.5				3.3	2.9	8.7				17.4	1.3	98.7					



# **International Fund Country Allocations**

As of March 31, 2017

Argentina	Australia	Austria	Belgium	Brazil	Canada	Chile	China	Czech Republic	Denmark	Finland	France	Germany	Greece	Hong Kong	Hungary	India	Indonesia	Ireland	Israel	Italy	Japan	Malaysia	Mexico	Netherlands
				7.9			22.4				3.6			3.5		15.5	2.3			1.6	1.7	2.0	4.5	
				7.6		1.3	26.9	0.2					0.3		0.3	8.9	2.5					2.4	3.7	0.3

**Oppenheimer Developing Markets Y** 

**MSCIEM** 

New Zealand	Norway	Pakistan	Philippines	Poland	Portugal	Russia	Singapore	Slovakia	South Africa	South Korea	Spain	Sweden	Switzerland	Taiwan	Thailand	Turkey	United Kingdom	United States	Non-US	Venezuela	Vietnam	Lithuania	Latvia	Estonia
			3.7	1.5		9.2	1.7		0.9	2.6				5.3	0.5	1.0	2.8	0.6	99.4					
			1.2	1.2		3.7			6.2	15.1				12.3	2.3	1.0			99.9					

**Oppenheimer Developing Markets Y** 

**MSCIEM** 



### **General Fund Information**

Fund	Manager	Average Tenure (years)	Longest Tenure (years)	Total Assets (\$MM)	Morningstar Rating Overall	Morningstar Analyst Rating	Prospectus Net Expense Ratio
Prudential Total Return Bond Q	Robert Tipp (4)*	7	15	\$29,039	****	Bronze	0.43
Neuberger Berman High Income Bond Instl	Thomas P. O'Reilly (4)*	6	12	\$4,052	***	Silver	0.71
T. Rowe Price Retirement Balanced	Jerome A. Clark (2)*	8	15	\$2,765	***	Silver	0.57
T. Rowe Price Retirement 2005	Jerome A. Clark (2)*	7	13	\$1,764	****	Silver	0.60
T. Rowe Price Retirement 2010	Jerome A. Clark (2)*	8	15	\$5,516	***	Silver	0.59
T. Rowe Price Retirement 2015	Jerome A. Clark (2)*	7	13	\$9,322	****	Silver	0.62
T. Rowe Price Retirement 2020	Jerome A. Clark (2)*	8	15	\$25,137	****	Silver	0.66
T. Rowe Price Retirement 2025	Jerome A. Clark (2)*	7	13	\$20,104	****	Silver	0.69
T. Rowe Price Retirement 2030	Jerome A. Clark (2)*	8	15	\$25,640	****	Silver	0.72
T. Rowe Price Retirement 2035	Jerome A. Clark (2)*	7	13	\$15,103	****	Silver	0.74
T. Rowe Price Retirement 2040	Jerome A. Clark (2)*	8	15	\$17,784	****	Silver	0.76
T. Rowe Price Retirement 2045	Jerome A. Clark (2)*	7	12	\$9,176	****	Silver	0.76
T. Rowe Price Retirement 2050	Jerome A. Clark (2)*	6	10	\$7,189	****	Silver	0.76
T. Rowe Price Retirement 2055	Jerome A. Clark (2)*	6	10	\$2,946	****	Silver	0.76
Vanguard Balanced Index Instl	Joshua C. Barrickman (4)*	2	4	\$32,693	****	Gold	0.07

<sup>\*</sup> Longest tenured manager listed with total number of fund managers listed in parentheses



### **General Fund Information**

		Average Tenure	Longest Tenure	Total Assets	Morningstar Rating	Morningstar Analyst	Prospectus Net Expense
Fund	Manager	(years)	(years)	(\$MM)	Overall	Rating	Ratio
Vanguard Equity-Income Adm	James P. Stetler (4)*	7	13	\$25,423	****	Silver	0.17
Vanguard Institutional Index I	Donald M. Butler (2)*	9	16	\$224,845	****	Gold	0.04
Fidelity Contrafund	William Danoff	27	27	\$107,344	***	Silver	0.68
Parnassus Core Equity Institutional	Todd C. Ahlsten (2)*	10	16	\$15,447	****	Silver	0.67
MFS Mid Cap Value R6	Brooks A. Taylor (2)*	8	8	\$6,265	***		0.75
Vanguard Mid Cap Index Adm	Donald M. Butler (2)*	10	19	\$83,367	***	Gold	0.08
Janus Enterprise N	Brian Demain (2)*	5	9	\$11,085	****	Bronze	0.68
Neuberger Berman Genesis Tr	Judith M. Vale (4)*	14	23	\$11,108	****	Bronze	1.10
Vanguard Small Cap Index Instl	Gerard C. O'Reilly (2)*	1	1	\$75,777	***	Gold	0.07
Vanguard Small Cap Growth Index Instl	Gerard C. O'Reilly (2)*	7	12	\$18,504	***	Silver	0.07
American Funds New Perspective R6	Robert W. Lovelace (7)*	11	16	\$57,445	****	Gold	0.45
Franklin Mutual Global Discovery Z	Peter A. Langerman (3)*	7	7	\$22,129	****	Silver	0.99
Dodge & Cox International Stock	C. Bryan Cameron (8)*	10	16	\$54,221	****	Gold	0.64
Artisan International Inv	Mark L. Yockey (3)*	11	21	\$12,871	**	Silver	1.19
Oppenheimer Developing Markets Y	Justin M. Leverenz	10	10	\$30,285	****	Silver	1.07

<sup>\*</sup> Longest tenured manager listed with total number of fund managers listed in parentheses



# Fee and Revenue Sharing

Fund	Prospectus Net Expense Ratio	Revenue Sharing	Expense Ratio Net of Revenue Sharing	Morningstar Category Avg Expense Ratio
Prudential Total Return Bond Q	0.43	0.00	0.43	0.79
Neuberger Berman High Income Bond Instl	0.71	0.10	0.61	1.08
T. Rowe Price Retirement Balanced	0.57	0.15	0.42	1.21
T. Rowe Price Retirement 2005	0.60	0.15	0.45	0.76
T. Rowe Price Retirement 2010	0.59	0.15	0.44	0.76
T. Rowe Price Retirement 2015	0.62	0.15	0.47	0.79
T. Rowe Price Retirement 2020	0.66	0.15	0.51	0.86
T. Rowe Price Retirement 2025	0.69	0.15	0.54	0.84
T. Rowe Price Retirement 2030	0.72	0.15	0.57	0.89
T. Rowe Price Retirement 2035	0.74	0.15	0.59	0.86
T. Rowe Price Retirement 2040	0.76	0.15	0.61	0.91
T. Rowe Price Retirement 2045	0.76	0.15	0.61	0.87
T. Rowe Price Retirement 2050	0.76	0.15	0.61	0.91
T. Rowe Price Retirement 2055	0.76	0.15	0.61	0.87
Vanguard Balanced Index Instl	0.07	0.00	0.07	1.19
Vanguard Equity-Income Adm	0.17	0.00	0.17	1.07
Vanguard Institutional Index I	0.04	0.00	0.04	1.01
Fidelity Contrafund	0.68	0.25	0.43	1.15
Parnassus Core Equity Institutional	0.67	0.10	0.57	1.01
MFS Mid Cap Value R6	0.75	0.00	0.75	1.18
Vanguard Mid Cap Index Adm	0.08	0.00	0.08	1.18
Janus Enterprise N	0.68	0.50	0.18	1.24
Neuberger Berman Genesis Tr	1.10	0.35	0.75	1.33
Vanguard Small Cap Index Instl	0.07	0.00	0.07	1.21
Vanguard Small Cap Growth Index Instl	0.07	0.00	0.07	1.31
American Funds New Perspective R6	0.45	0.00	0.45	1.30
Franklin Mutual Global Discovery Z	0.99	0.15	0.84	1.30
Dodge & Cox International Stock	0.64	0.10	0.54	1.12
Artisan International Inv	1.19	0.35	0.84	1.26
Oppenheimer Developing Markets Y	1.07	0.25	0.82	1.48



### Glossary of Investment Terms

**Alpha** is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive Alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed, given the expectations established by beta.

Average Credit Quality gives a snapshot of the portfolio's overall credit quality. It is an average of each bond's credit rating, adjusted for its relative weighting in the portfolio. For corporate bond and municipal bond funds, Morningstar also shows the percentage of fixed-income securities that fall within each credit-quality rating, as assigned by Standard & Poor's or Moody's. Because it's rare to find individual bonds in a portfolio with a rating below B, the average credit quality of bond funds in Morningstar's database ranges from AAA (highest) to B (lowest). AAA bonds carry the highest credit rating, while bonds issued by speculative companies usually carry the lowest credit ratings. For taxable bonds, anything at or below BB is considered a high-yield or junk bond. For the purpose of Morningstar's calculations, U.S. government bonds are considered AAA and other nonrated bonds generally are considered B.

**Average Duration** is a measure of a fund's interest-rate sensitivity. The longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration.

**Average Maturity** is a weighted average of all the maturities of the bonds in a portfolio, computed by weighting each bond's effective maturity by the market value of the security. Average effective maturity takes into consideration all mortgage prepayments, puts, and adjustable coupons. Longer-maturity funds are generally considered more interest-rate sensitive than their shorter counterparts.

**Batting Average** is a measure of a manager's ability to consistently beat the market. It is calculated by dividing the number of months in which the manager beat or matched an index by the total number of months in the period. For example, a manager who meets or outperforms the market every month in a given period would have a batting average of 100. A manager who beats the market half of the time would have a batting average of 50.

Beta is a measure of systematic risk with respect to a benchmark. Systematic risk is the tendency of the value of the fund and the value of benchmark to move together. Beta measures the sensitivity of the fund's excess return (total return minus the risk-free return) with respect to the benchmark's excess return that results from their systematic co-movement. It is the ratio of what the excess return of the fund would be to the excess return of the benchmark if there were no fund-specific sources of return. If beta is greater than one, movements in value of the fund that are associated with movements in the value of the benchmark tend to be amplified. If beta is one, they tend to be the same, and if beta is less than one, they tend to be dampened. If such movements tend to be in opposite directions, beta is negative. Beta is measured as the slope of the regression of the excess return on the fund as the dependent variable and the excess return on the benchmark as the independent variable. The beta of the market is 1.00 by definition. Morningstar calculates beta by comparing a portfolio's excess return over T-bills to the benchmark's excess return over T-bills, so a beta of 1.10 shows that the portfolio has performed 10% better than its benchmark in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the portfolio's excess return is expected to perform 15% worse than the benchmark's excess return during up markets and 15% better during down markets.

**Downside Capture Ratio** measures a manager's performance in down markets relative to the market (benchmark) itself. For example, if the ratio is 90%, the manager has captured 90% of the down-market and outperformed the market on the downside.



Geometric Average Market Cap provides a measure of the size of the companies in which the fund invests. It is the weighted mean of the market capitalizations of the stocks in the fund's portfolio and is calculated by raising the market capitalization of each stock to a power equal to that stock's stake in the portfolio. The resulting numbers are multiplied together to produce the geometric mean of the market caps of the stocks in the portfolio, which is reported as average market capitalization.

**Information Ratio** is a risk-adjusted performance measure. The information ratio is a special version of the Sharpe Ratio in that the benchmark is typically the fund's performance benchmark instead of the risk free rate. A higher information ratio indicates higher active returns per unit of active risk while a lower information ratio may indicate low levels of active returns, high levels of active risk or both.

**Morningstar Analyst Rating** is based on the Morningstar analyst's conviction in the fund's ability to outperform its peer group and/or relevant benchmark on a risk-adjusted basis over the long term. The 5 ratings include Gold, Silver, Bronze, Neutral, and Negative. If a fund receives a positive rating of Gold, Silver, or Bronze, it means Morningstar analysts think highly of the fund and expect it to outperform over a full market cycle of at least five years.

Morningstar Star Rating funds are ranked within their Morningstar categories according to their risk-adjusted return (after accounting for all sales charges and expenses), and stars are assigned such that the distribution reflects a classic bell-shaped curve with the largest section in the center. The 10% of funds in each category with the highest risk-adjusted return receive five stars, the next 22.5% receive four stars, the middle 35% receive three stars, the next 22.5% receive two stars, and the bottom 10% receive one star.

**P/B Ratio** is the weighted average of the price/book ratios of all the stocks in a portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain. In practice, book value is an accounting number and for a variety of reasons may not reflect the actual value assigned to a company or security by market participants.

**P/E Ratio** is the weighted average of the price/earnings ratios of all the stocks in a portfolio. A fund's price/earnings ratio can act as a gauge of the fund's investment strategy in the current market climate, and whether it has a value or growth orientation. Companies in those industries enjoying a surge of popularity tend to have high P/E ratios, reflecting a growth orientation. More staid industries tend to have low P/E ratios, reflecting a value orientation. Morningstar generates this figure in-house on a monthly basis, based on the most-recent portfolio holdings submitted by the fund and stock statistics gleaned from our internal U.S. equities databases. Negative P/Es are not used, and any P/E greater than 60 is capped at 60 in the calculation of the average.

**Peer Group Ranking** is the fund's total-return percentile rank relative to all funds that have the same Morningstar Category. Morningstar categorizes funds based on their portfolio holdings (portfolio statistics and compositions over the past 3 years). The highest (or most favorable) percentile rank is 1 and the lowest (or least favorable) percentile rank is 100. The top-performing fund in a category will always receive a rank of 1.

**Sharpe Ratio** is a risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the fund's historical risk-adjusted performance. The Sharpe ratio is calculated for the past 36-month period by dividing a fund's annualized excess returns by the standard deviation of a fund's annualized excess returns. Since this ratio uses standard deviation as its risk measure, it is most appropriately applied when analyzing a fund that is an investor's sole holding. The Sharpe Ratio can be used to compare two funds directly on how much risk a fund had to bear to earn excess return over the risk-free rate.



**Standard Deviation** is a statistical measurement of dispersion about an average, which, for a mutual fund, depicts how widely the returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that are most likely for a given fund. When a fund has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

**Total Return** is determined by taking the change in net asset value, reinvesting all income and capital-gains distributions, and dividing by the starting net asset value (NAV). Reinvestments are made using the actual reinvestment NAV, and daily payoffs are reinvested monthly. Total return is expressed as a percentage.

**Tracking Error** is a measure of the volatility of excess returns relative to a benchmark.

**Turnover Ratio** is a measure of the fund's trading activity which is computed by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. A turnover ratio of 100% or more does not necessarily suggest that all securities in the portfolio have been traded. In practical terms, the resulting percentage loosely represents the percentage of the portfolio's holdings that have changed over the past year. A low turnover figure (20% to 30%) would indicate a buy-and-hold strategy while a high turnover (more than 100%) would indicate an investment strategy involving considerable buying and selling of securities.

**Upside Capture Ratio** measures a manager's performance in up markets relative to the market (benchmark) itself. For example, if the ratio is 110%, the manager has captured 110% of the up-market and outperformed the market on the upside.



#### **Sector Definitions**

- **Energy Sector:** The Energy Sector comprises companies whose businesses are dominated by either of the following activities: The construction or provision of oil rigs, drilling equipment and other energy related service and equipment, including seismic data collection. Companies engaged in the exploration, production, marketing, refining, and/or transportation of oil and gas products, coal and other consumer fuels.
- Materials Sector: The Materials Sector encompasses a wide range of commodity-related manufacturing industries. Included in this sector are companies that manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including producers of steel.
- Industrials Sector: The Industrials Sector includes companies whose businesses are dominated by one of the following activities: The manufacture and distribution of capital goods, including aerospace and defense, construction, engineering and building products, electrical equipment and industrial machinery. The provision of commercial services and supplies, including printing, employment, environmental and office services. The provision of transportation services, including airlines, couriers, marine, road and rail and transportation infrastructure.
- Consumer Discretionary Sector: The Consumer Discretionary Sector encompasses those industries that tend to be the most sensitive to economic cycles. Its manufacturing segment includes automotive, household durable goods, textiles and apparel and leisure equipment. The services segment includes hotels, restaurants and other leisure facilities, media production and services, and consumer retailing and services.
- Consumer Staples Sector: The Consumer Staples Sector comprises companies whose businesses are less sensitive to economic cycles. It includes manufacturers and distributors of food, beverages and tobacco and producers of non-durable household goods and personal products. It also includes food and drug retailing companies as well as hypermarkets and consumer super centers.
- **Health Care Sector:** The Health Care Sector encompasses two main industry groups. The first includes companies who manufacture health care equipment and supplies or provide health care related services, including distributors of health care products, providers of basic health-care services, and owners and operators of health care facilities and organizations. The second regroups companies primarily involved in the research, development, production and marketing of pharmaceuticals and biotechnology products.
- **Financials Sector:** The Financials Sector contains companies involved in banking, thrifts & mortgage finance, specialized finance, consumer finance, asset management and custody banks, investment banking and brokerage and insurance. It also includes Financial Exchanges & Data and Mortgage REITs.
- Real Estate Sector: The Real Estate Sector contains companies engaged in real estate development and operation. It also includes companies offering real estate related services and Equity Real Estate Investment Trusts (REITs).
- Information Technology Sector: The Information Technology Sector covers the following areas: firstly, Technology Software and Services, including companies that primarily develop software in various fields such as the Internet, applications, systems, database management and/or home entertainment, and companies that provide information technology consulting and services, as well as data processing and outsourced services; secondly, Technology Hardware and Equipment, including manufacturers and distributors of communications equipment, computers and peripherals, electronic equipment and related instruments; and thirdly, Semiconductors and Semiconductor Equipment Manufacturers.



- **Telecommunications Services Sector:** The Telecommunications Services Sector contains companies that provide communications services primarily through a fixed-line, cellular, wireless, high bandwidth and/or fiber optic cable network.
- **Utilities Sector:** The Utilities Sector encompasses those companies considered electric, gas or water utilities, or companies that operate as independent producers and/or distributors of power.

### Regional Definitions

- North America: United States and Canada
- Emerging Central & Latin America: Mexico and Central and South America
- United Kingdom: England, Northern Ireland, Scotland, Wales
- Developed Europe: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain
- Emerging Europe: Russia and other Eastern European countries
- Africa/Middle East: Africa and Western Asian countries
- Japan: Japan
- Australasia: Australia and New Zealand
- Developed Asia: Hong Kong, Singapore, South Korea
- Emerging Asia: China, India, Indonesia, Malaysia, Philippines, Thailand



Client has the authority to select investments and investment managers. Past performance is not indicative of future results. We do not guarantee the performance of any investment, fund, or manager.

This report was prepared by Conduent HR Consulting, LLC, a Conduent Company 420 Lexington Ave, 10th Floor, New York, NY 10170-2220